

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A barley plant, ~~or a part thereof,~~ or a portion of said plant, comprising ~~less than 5% of the LOX-1 activity of a wild-type barley plant~~ a mutated LOX-1 protein lacking all or a portion of the C-terminal LOX-1 enzymatic domain corresponding to amino acids 520 to 862 of wild type barley LOX-1 (SEQ ID NO: 3 or 7), wherein said plant exhibits null LOX-1 activity.
- 2-49. (Cancelled)
50. (New) The barley plant or portion according to claim 1, wherein said mutated LOX-1 protein is truncated at or between amino acids 378 and 665 of wild-type barley LOX-1.
51. (New) The barley plant or portion according to claim 1, wherein said mutated LOX-1 protein consists essentially of amino acids 1-378 of wild-type barley LOX-1 (SEQ ID NO: 3 or 7).
52. (New) The barley plant or portion according to claim 1, wherein said mutated LOX-1 protein has the amino acid sequence of SEQ ID NO: 4 or 8.
53. (New) The barley plant or portion according to claim 1, wherein said mutated LOX-1 protein is encoded by a gene that comprises a premature stop codon at or between nucleotides 2311 and 3574 of wild-type genomic barley lox-1 (SEQ ID NO: 1 or 5).
54. (New) The barley plant or portion according to claim 1, wherein said mutated LOX-1 protein is encoded by a gene that comprises a stop codon at nucleotides 3572-3574 of wild-type genomic barley lox-1 (SEQ ID NO: 1 or 5).

55. (New) The barley plant or portion according to claim 1, wherein said mutated LOX-1 protein is encoded by a gene that comprises the nucleic acid sequence of SEQ ID NO: 2 or 6.
56. (New) The barley plant or portion according to claim 1, wherein said plant has ATCC accession No. PTA-5847 or PTA-5584, or is a progeny plant thereof.
57. (New) The barley plant or portion according to claim 1, wherein said portion comprises a kernel.
58. (New) The barley plant or portion according to claim 1, wherein said portion comprises an embryo.
59. (New) The barley plant or portion according to claim 1, wherein said LOX-1 activity is determined in homogenized embryo tissue of M3 or M4 plant kernels.
60. (New) A method for selecting mutant barley plants having null LOX-1 activity, comprising:
- a. breeding mutagenized barley plants or tissue obtained therefrom to produce generation M_x barley plants, where x is at least 2; and
 - b. selecting plants having null LOX-1 activity in kernel tissue of said generation M_x plants.
61. (New) The method of claim 60, wherein said selecting is of generation M3 or M4 plants.
62. (New) A **malt** composition comprising malted kernels of the plant of claim 1.
63. (New) A **malt** composition comprising malted kernels of the plant of claim 54.
64. (New) A **wort** composition comprising malted and mashed kernels of a plant of claim 1.

- 65. (New) A **beverage** prepared from the plant or plant portion of claim 1, wherein the plant or portion is malted or unmalted.
- 66. (New) A **beverage** prepared from the plant or plant portion of claim 54, wherein the plant or portion is malted or unmalted.
- 67. (New) A **beverage** prepared from the plant or plant portion of claim 1, wherein the beverage is non-fermented or fermented.
- 68. (New) A **beverage** prepared from the plant or plant portion of claim 1, wherein the beverage contains 9, 12, 13-trihydroxyoctadecanoic acid and 9, 10, 13-trihydroxyoctadecanoic acid in a ratio of no more than 1.8.
- 69. (New) **Beer** prepared from the plant or plant portion of claim 1.
- 70. (New) **Beer** prepared from the plant or plant portion of claim 54.
- 71. (New) **Beer** prepared from kernels of the plant of claim 1.
- 72. (New) **Beer** prepared from grain of the plant of claim 1.
- 73. (New) **Beer** prepared from malted grain of the plant of claim 1.
- 74. (New) **Beer** prepared from mashed malted grain of the plant of claim 1.